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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,948	07/03/2001	Greg Hetherington	GRIHAC P22AUSD1	7448
20210	7590	12/31/2003	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			COLBERT, ELLA	
			ART UNIT	PAPER NUMBER
			3624	
DATE MAILED: 12/31/2003				

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/898,948	HETHERINGTON, GREG
	Examiner Ella Colbert	Art Unit 3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 November 2003.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 54-94, 103 and 107-110 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 54-66, 69-84, 87-94, 103 and 107-110 is/are rejected.
- 7) Claim(s) 67, 68, 85 and 86 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

1. Claims 54-94 and 103 and newly added claims 107-110 are pending. Claims 95-102 and 104-106 have been canceled without prejudice in this communication filed 11/24/ 03, entered as RCE paper no. 11.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 11/24/03 has been entered as paper no. 11.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 54, 73, 85, 93, 94, and 107-110 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 54, lines 5-9 recite "information (attributes) about data, ... about the data and/or to". It is unclear whether Applicants' mean " information about data, ... about the data and to" or "attributes about data, ... about the data or". Claims 73, 85, 93, 94, and 107-110 have a similar problem. Claim 108 appears to be claiming a system mixed with a method claim. If Applicants' wants to claim "The computer readable memory storing instructions

for controlling a computer to process free-format data stored in a computing system".

This claim limitation would be better recited "The processing system according to claim 73 comprising the step of : a computer readable memory storing instructions for controlling a computer to process free-format data stored in a computer system".

Claims 109 and 110 are confusing and indefinite, in particular, claim 109 reciting "the system is arranged to process a plurality of free-format data records and produce a text object ....". This limitation appears to belong separate from the other claim limitations because of the sentence beginning with "the system". It is unclear what Applicants' are trying to claim because of the wording of the claim limitations. Claim 110 has a similar problem beginning with "the system is arranged to process a plurality of free-format data ....". These limitations would be clearer if they were formatted like claims 107 and 108.

Clarification in the claim language is respectfully requested.

### ***Abstract***

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. The Abstract should not contain any reference numbers, for example "top node 202" or "branches 300".

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

***Claim Objections***

6. Claims 57, 67, 76, 93, 109, and 110 are objected to because of the following informalities: Claim 57, line 2 recites "... which identifies and attribute type of". This claim limitation should recite "...which identifies and attribute-type of". Claims 67 and 76 have a similar problem. Claim 93, line 5 recites "... data records, the text object". This line should recite "...the free-format data is postal address data." with each data record, the text object". Claim 109, line 15 recites "... the semantic an syntactic information". This line would be better recited "... the semantic and syntactic information." Applicants' are advised to review the claims for other errors in spelling and grammar. Appropriate correction is required.

***Drawings***

7. The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

New corrected drawings are required in this application because the Draftsperson's review attached to this Office Action indicates on the Form PTO- 948

that drawing corrections are required. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 54-94, 103, and 107-110 are rejected under the judicially created doctrine of double patenting as being unpatentable over claims 1-39 of U. S. Patent No. 6,272,495. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: A method of processing free-format data stored in a computing system, comprising the steps of examining elements of the data to determine attributes of the data, by examining the content of the elements and the contextual relationships of elements to each other, to determine semantic and syntactic information (attributes) about the data, producing additional data relating to this information, in the form of a text object which includes pointer means enabling access to the elements of the free-format data, and the additional data being accessible by a query processing means to provide answers to queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data and claims 54-94, 103, 107-110 claim substantially the same claim limitations as those of claims 1-39 of the '495 patent.

Claims 55-66, 68, 70-72, 74-84, and 86-92 recite the same claim limitations as claims 2-12, 14, 16-18, 20-30, and 31 of the '495 patent.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

11. Claims 54-94, and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al (5,826,258), hereafter Gupta in view of (US 5,966,686) Heidorn et al, hereafter Heidorn.

With respect to claims 54 and 73 Gupta teaches, examining elements of the data to determine attributes ... (col. 5, lines 5-31), examining the contents of the elements and the contextual relationships of elements to each other ... determine semantic and syntactic information about the data (col. 4, lines 32-41 and col. 5, lines 47-57 and fig. 4), and producing additional data relating to information in the form of a text object comprising a text node tree which includes pointer means enabling access to the elements of the free-format data (col. 4, lines 41-50). Gupta fails to teach, additional data being accessible by a query processing means to provide answers to the queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data.

Heidorn teaches, additional data being accessible by a query processing means to provide answers to the queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data (col. 1, lines 13-21 and col. 2, lines 11-27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have additional data accessible by a query

processing means to provide answers to the queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data and to modify in Gupta in view of Gupta's teaching of querying (searching) (as taught in the background section, columns 1 and 2) and because such a modification would allow Gupta to have relational database queries that can be utilized to find information of interest including attributes in syntactic and semantic information. However, Gupta does teach, producing virtual data fields associated with each record ... and the associated elements, where each record is provided with associated virtual data fields ... to semantic and syntactic information ... and access to the associated elements (col. 5, lines 7-39 and col. 6, lines 1-23).

With respect to claims 55 and 74, Gupta teaches, the free-format data is stored as a record in a free-format field of a database (col. 8, lines 21-30).

With respect to claim 56, Gupta teaches, the data remains stored in the computing system as it was originally stored ... accessed by other applications" (col. 8, lines 31-43).

With respect to claims 57 and 76, Gupta fails to teach, the text object includes an attribute-type identifier ... of an element of the data. Heidorn teaches, the text object includes an attribute-type identifier ... of an element of the data (col. 10, lines 9-34). It would have been obvious at the time the invention was made to one having ordinary skill in the art of text objects to have the text object include an attribute-type identifier ... of an element of the data and to modify in Gupta because such a modification would allow Gupta to have a database record with the name or structure of a field containing information in the form of attribute identifying data. The data may be a name identifier attribute (for example: a street name or a state name) identifying each attribute field (see Gupta at col. 4, lines 37-41).

With respect to claims 58 and 77, Gupta fails to teach, the text object includes a value indicating the character length of an element of the data. Heidorn teaches, the text object includes a value indicating the character length of an element of the data (col. 12, lines 40-55). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a text object with a value indicating the character length of an element of data and to modify in Gupta because such a modification would allow Gupta to have characters in words with different lengths and the permutations generated for a particular address and the values according to their association with a particular attribute.

With respect to claims 59 and 78, Gupta fails to teach, the text object includes a value indicating whether an element is low level in a syntactic hierarchy or higher level whereby the value may be used for matching purposes when matching data with other data processed in accordance with the method. Heidorn teaches, the text object includes a value indicating whether an element is low level in a syntactic hierarchy or higher level whereby the value may be used for matching purposes when matching data with other data processed in accordance with the method (col. 11, 55-67 and col. 12, lines 1-14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the text object to include a value indicating whether an element is in a low level in a syntactic hierarchy or higher level whereby the value may be used for matching purposes when matching data with other data processed in accordance with the method and to modify in Gupta because such a modification would allow Gupta to have words with the highest values placed above and used to establish the order of precedence. Syntactic hierarchies are used to provide an organizational framework that reflects the logical links or relationships between separate elements.

With respect to claims 75 Gupta and Heidorn fails to teach, the examining means does not affect the storage of the data, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to not have the examining means to affect the storage of the data and to modify in Gupta because such a modification would allow Gupta to have the data typically stored on a computer readable storage medium like a hard drive or memory and to be typically performed by a user, the step can be automated so that the step is performed by a programmed computer system.

With respect to claims 93 and 94, Gupta teaches, a plurality of free-format data records (col. 6, lines 24-43), comprising steps of storing additional data relating to semantic and syntactic information (attributes) about the data for each data record (col. 8, lines 21-40), the additional data being in the form of a text object associated with each data record (col. 8, lines 50-59), the text object including pointer means enabling access to elements of each free-format data record (col. 4, lines 41-50). Gupta fails to teach, the additional data being accessible by a query processing means to provide at least one of the answers to queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data. Heidorn teaches, the additional data being accessible by a query processing means to provide at least one of the answers to queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data (col. 1, lines 13-21 and col. 2, lines 11-27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the additional data accessible by a query processing means to provide at least one of the answers to queries relating to the semantic and syntactic information about the data and/or to access the data to manipulate the data in view of Gupta's teaching of querying (searching) (as taught in the background section,

columns 1 and 2) because relational database queries can be utilized to find information of interest including attributes in syntactic and semantic information (see Gupta at col. 1, lines 57-65).

With respect to claim 103, Gupta teaches, computer readable memory storing instructions for controlling a computer to process free-format data stored in a computing system (col. 3, lines 55-67 and col. 4, lines 1-11).

12. Claims 60-66, 68-72, 79-84, and 87-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta and Heidorn in view of Chuah et al (5,515,534), hereafter Chuah.

With respect to claims 60 and 79, Gupta and Heidorn fail to teach, the text object including a match weighting value for an element of the data which can be used to determine the significance of the element when matching with other free-format data.

Chuah teaches this in col. 2, lines 13-56, col. 3, lines 49-67, and col. 4, lines 1-35. Gupta proposed producing additional data relating to the attributes; Chuah proposed a match weighting value for an element, and determining the significance of the element when matching free-format data. Gupta and Chuah together proposed producing additional data, a match weighting value for an element, and determining the significance of an element when matching free-format data. It would have been obvious at the time the invention was made to one having ordinary skill in the art of match weighting values to make a determination of the significance of the element and to modify in Gupta because the processing of the free-matching elements when weighted are given scores. For example the match is a single word "DC" which matches a state attribute and generates an associated score 0.15 using the count 10 and  $k_1$  and  $w_1$  values (see Chuah, column 5, lines 46-50).

With respect to claims 61 and 80, Gupta and Chuah fail to teach, the text object comprises component nodes arranged according to the semantic structure of the free-format data and arranged in a hierarchy corresponding to the semantic structure of the free-format data and a component node including additional data relating to the corresponding element of the free-format data. Heidorn teaches, the text object comprises component nodes arranged according to the semantic structure of the free-format data and arranged in a hierarchy corresponding to the semantic structure of the free-format data and a component node including additional data relating to the corresponding element of the free-format data (col. 11, lines 8-28). It would have been obvious at the time the invention was made to one having ordinary skill in the art of component nodes to arrange the nodes in a hierarchy corresponding to the semantic structure and to modify in Gupta because such a modification would allow Gupta to have each node with a unique identifier and a node value containing the word and syntactic information on the word in the hierarchy.

With respect to claims 62 and 81, Gupta and Heidorn fail to teach, generating matching values for comparing an element of the free-format data with an element of other free-format data ... .

Chuah teaches this in col. 4, lines 39-56. Gupta proposed enabling access to the elements of the free-format data; Chuah proposed the generation of matching values when comparing an element of free-format data. Gupta and Chuah together proposed accessing elements of free-format data and generating matching values when comparing an element of free-format data. It would have been obvious at the time the invention was made to one having ordinary skill in the art of comparing elements of free-format data to generate matching values because the elements of the values when

matched are compared when forming the entries in the dictionary and passes the results to be processed (see Chuah, figures 4 and 6).

With respect to claims 63 and 82, Gupta, Heidorn, and Chuah fail to teach, the matching value is a phonetic value for phonetically comparing elements of free-format data, but it would have been obvious at the time the invention was made to one having ordinary skill in the art of phonetic values to have a matching value because phonetic values are given a classification according to their assigned matched value represented by a distinct character.

With respect to claims 64 and 83, Gupta and Heidorn fail to teach, the text object includes implied data relating to information implied from the free-format data. Chuah teaches, this in col. 8, lines 63-67 and col. 9, lines 1-4. Gupta proposed processing free-format data; Chuah proposed a text object with implied data related to information from the free-format data. Gupta and Chuah together proposed processing free-format data, a text object with implied data related to free-format data information. It would have been obvious at the time the invention was made to one having ordinary skill in the art of implied data to have a text object because the free-formatted data record is characterized by a plurality of data words comprising sequences of data words associated with the attribute fields of the data record.

With respect to claim 65, 66, and 84, Gupta and Heidorn fail to teach, a plurality of free-format data records are processed and a text object associated with each free-format data record is produced. Chuah teaches, this in col. 9, lines 34-52. Gupta proposed producing additional data in the form of a text object; Chuah proposed a plurality of free-format records and a text object associated with each free-format record being produced. Gupta and Chuah together proposed producing additional data in the form of a text object, a plurality of free-format records with a text object associated

producing a free-format record. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a text object associated with the free-format data record and to modify in Gupta because such a modification would allow Gupta to have the free-formatted data record characterized by a plurality of data components having a predefined format with each being formed from a plurality of data attributes corresponding to attribute fields.

With respect to claims 69, 87, and 88, Gupta and Heidorn fail to teach, carrying out a domain construction process to construct a domain object from domain definition data files. Chuah teaches this in col. 2, lines 13-29 and col. 8, lines 7-29. Gupta proposed steps for processing free-format data; Chuah proposed constructing a domain object from domain definition data files. Gupta and Chuah together proposed steps for processing free-format data, and constructing a domain object from domain definition files. It would have been obvious at the time the invention was made to one having ordinary skill in the art of domain construction to construct a domain object from domain definition data files because the domain is constructed according to the attribute of the data that points to or connects to instances of the object.

Gupta, Heidorn, and Chuah fail to teach, the domain object being arranged to carry out the examination process by parsing the free-format data in accordance with grammar rules, but it would have been obvious at the time the invention was made to one having ordinary skill in the art of domain objects to parse the free-format data according to the grammar rules because the domain object is arranged to carry out the examination process by parsing the free-format data according to the grammar rules since the parsing is done by comparing the string to be parsed to a grammar which defines possible structures.

With respect to claim 89, Gupta and Heidorn fail to teach, a domain constructor for carrying out the domain construction process. Chuah teaches this in col. 4, lines 19-35 and col. 7, lines 29-55. Gupta proposed processing free-format data; Chuah proposed a domain constructor for the domain construction process. Gupta and Chuah together proposed processing free-format data and constructing a domain construction process. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a domain constructor for carrying out the domain construction process because the domain is constructed according to the attribute of the data that points to or connects to instances of the object.

With respect to claims 70 and 90, Gupta, Heidorn, and Chuah fail to teach, the domain definition data files include character definition data, regular expression definition data and grammar data, but it would have been obvious at the time the invention was made to one having ordinary skill in the art of domain definition files to have character definition data, regular expression definition data, and grammar data because the text string is found at the node in the hierarchy according to the rules of grammar for establishing the usage of words and the construction of sentences in free-format data when parsing is performed.

With respect to claims 71 and 91, Gupta and Heidorn fail to teach, the free-format data is postal address data. Chuah disclosed this in col. 8, lines 30-48. Gupta proposed examining elements and their relationships to each other; Chuah proposed the free-format data being a postal address. Gupta and Chuah together proposed examining elements and their relationships and having a postal address that is free-format data. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have postal address data and to modify in Gupta because such a modification would allow Gupta to have a program that checks the

spelling of the city name which is associated with the zip code and the token as any combination or sequence of data words forming a free-formatted data record.

With respect to claims 72 and 92, Gupta and Heidorn fail to teach, the query processing means can carry out normal database operations on the data via the additional data. Chuah teaches this in col. 4, lines 39-52. Gupta proposed data being accessible by a query processing means; Chuah proposed the query processing means carrying out normal database operations on the data. Gupta and Chuah together proposed a query processing means to carry out normal database operations on the data. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the query processing means carry out normal database operations on the data via the additional data and to modify in Gupta because such a modification would allow Gupta to have the database unload an address where the normalization program is stored in the memory then to pass the query to the parser and the parser parse the queries according to the known strategies for parsing.

***Allowable Subject Matter***

13. Claims 67, 68, 85, and 86 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: Applicants' step of producing a text object index including the attribute type identifiers for the elements of the data record with pointers to the data record with the index being queried by queries related to semantic and syntactic information and the data being accessed via the index and a method for an entry in a text object index including a key value giving a value representative of a feature an element associated

with an attribute-type identifier, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

**15. Claims 107-110 will be allowable when the 35 U.S.C. 112 second paragraph rejection is overcome.**

The following will be the Examiner's statement of reasons for allowance:  
Applicants' producing a text object index including attribute-type identifiers for the elements of each data record and pointers to each data record with the index being queried by queries relating to the semantic and syntactic information about the data and the data being accessed via the index, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

16. Applicants' arguments filed 10/1/03 Applicant's arguments with respect to claims 54-59, 73-78, 93, 94, and 97-106 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Smith et al (US 6,052,693) disclosed an object-oriented structured database, information indexing, attribute-type, values, a parse tree, and match rules.

Mase et al (US 5,978,820) disclosed attributes, domain types, values, fields, and grammar rules.

**Inquiries**

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday from 6:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

  
E. Colbert  
December 18, 2003